We claim:

1. A system for controlling at least one fan, comprising:

a first plurality of inputs configured to receive sensor data from each of a plurality of zones; and

a logic block coupled to the first plurality of inputs, wherein the logic block is configured to receive the sensor data from each of the plurality of zones, wherein the logic block is operable to calculate a single PWM value based on the sensor data from two or more of the plurality of zones;

wherein the logic block is further operable to provide the single PWM value to control the at least one fan.

2. The system of claim 1 wherein the sensor data comprise temperature readings from various temperature sensors configured in respective ones of the plurality of zones.

3. The system of claim 1, further comprising:

a second plurality of inputs configured to receive zone parameter data for each of the plurality of zones;

wherein the logic block is coupled to the second plurality of inputs, wherein the logic block is also configured to receive the zone parameter data for each of the plurality of zones; and

wherein the logic block is operable to calculate the single PWM value based on the sensor data from two or more of the plurality of zones and the zone parameter data for the two or more of the plurality of zones.

4. The system of claim 3, further comprising:

a third plurality of inputs configured to receive PWM parameter data for each of a plurality of PWM outputs;

wherein the logic block is coupled to the third plurality of inputs, wherein the logic block is also configured to receive the PWM parameter data for each of the plurality of PWM outputs;

wherein one of the plurality of PWM outputs corresponds to the single PWM value; and

wherein the logic block is operable to calculate the single PWM value based on the sensor data from two or more of the plurality of zones, the zone parameter data for the two or more of the plurality of zones, and the PWM parameter data for the one of the plurality of PWM outputs corresponding to the single PWM value.

5. The system of claim 1, wherein the logic block is operable to calculate each respective one of a plurality of single PWM values based on the sensor data from two or more of the plurality of zones.

6. The system of claim 5, further comprising:

a second plurality of inputs configured to receive zone parameter data for each of the plurality of zones;

wherein the logic block is coupled to the second plurality of inputs, wherein the logic block is also configured to receive the zone parameter data for each of the plurality of zones; and

wherein the logic block is operable to calculate each respective one of the plurality of single PWM values based on the sensor data from two or more of the plurality of zones and the zone parameter data for the two or more of the plurality of zones.

7. The system of claim 6, further comprising:

a third plurality of inputs configured to receive PWM parameter data for each of a plurality of PWM outputs;

wherein the logic block is coupled to the third plurality of inputs, wherein the logic block is also configured to receive the PWM parameter data for each of the plurality of PWM outputs;

wherein each one of the plurality of PWM outputs corresponds to a respective one of the plurality of single PWM values; and

wherein the logic block is operable to calculate each respective one of the plurality of single PWM values based on the sensor data from two or more of the plurality of zones, the zone parameter data for the two or more of the plurality of zones, and the PWM parameter data for the one of the plurality of PWM outputs corresponding to the respective one of the plurality of single PWM values.

8. The system of claim 1, wherein in calculating the single PWM value, the logic block is operable to perform the calculating using an autofan control algorithm.

9. The system of claim 1,

wherein the logic block is further operable to calculate the single PWM value based on sensor data from three or more of the plurality of zones.

10. A method for controlling a fan, comprising:

receiving a first set of parameters corresponding to a first temperature zone;

receiving a second set of parameters corresponding to a second temperature zone; and

generating a single PWM output based on the first set of parameters and the second set of parameters to control the fan.

11. The method of claim 10, wherein said generating the single PWM output based on the first set of parameters and the second set of parameters to control the fan comprises:

calculating a first PWM value based on the first set of parameters; and

generating an offset value based on the second set of parameters;

wherein value of the single PWM output is a sum of the first PWM value and the offset value.

12. The method of claim 11, wherein said generating the offset value comprises calculating a ΔPWM value based on the second set of parameters;

wherein the offset value is a product of a scaling factor and the ΔPWM value.

13. The method of claim 11, wherein said generating the offset value comprises:

calculating a first ΔPWM value based on the first set of parameters; and

calculating a second ΔPWM value based on the second set of parameters;

wherein the offset value is a product of the first ΔPWM value, the second ΔPWM value, and a scaling factor.

14. The method of claim 11, wherein said generating the offset value comprises:

calculating a first ΔPWM value based on the first set of parameters;

calculating a second ΔPWM value based on the second set of parameters;

generating a first offset term, wherein the first offset term is a product of a first scaling factor, the first ΔPWM value, and the second ΔPWM value;

generating a second offset term, wherein the second offset term is a product of a second scaling factor and the second ΔPWM value; and

comparing the first offset term with the second offset term;

wherein if the first offset term is greater than the second offset term then the offset value equals the first offset term, else the offset value equals the second offset term.

15. The method of claim 10 wherein the first set of parameters comprises temperature readings from one or more temperature sensors configured in the first temperature zone.

16. The method of claim 10 wherein the second set of parameters comprises temperature readings from one or more temperature sensors configured in the second temperature zone.

17. The method of claim 10 further comprising receiving PWM parameter data corresponding to the single PWM output;

wherein said generating the single PWM output based on the first set of parameters and the second set of parameters to control the fan comprises generating the single PWM value based on the PWM parameter data.

18. A method for calculating value of a single PWM output used for controlling a fan, the method comprising:

receiving first PWM duty cycle information corresponding to a first temperature zone;

receiving second PWM duty cycle information corresponding to a second temperature zone; and

generating the value of the single PWM output based on a combination of the first PWM duty cycle information and the second PWM duty cycle information.

19. An autofan system comprising:

a first data selection unit (DSU) configured to receive sensor data from a plurality of zones;

a second DSU configured to receive zone parameter data for the plurality of zones;

a third DSU configured to receive PWM parameter data for a plurality of PWM outputs;

a fourth DSU configured to provide the plurality of PWM outputs; and

a PWM computation logic block (PCLB) coupled to the first, second, third and fourth DSU;

wherein the first DSU is operable to provide respective sensor data received from two or more of the plurality of zones to the PCLB for calculating a corresponding single PWM value;

wherein the second DSU is operable to provide respective zone parameter data received for two or more of the plurality of zones to the PCLB for calculating the corresponding single PWM value; and

wherein the PCLB is operable to calculate the corresponding single PWM value based on the respective sensor data received from the first DSU and the respective zone parameter data received from the second DSU.

20. The autofan system of claim 19 wherein the sensor data comprise temperature readings from various temperature sensors configured in respective ones of the plurality of zones.

21. A system for controlling at least one fan, comprising:

a first plurality of inputs configured to receive sensor data from each of a plurality of zones; and

a logic block coupled to the first plurality of inputs, wherein the logic block is configured to receive the sensor data from each of the plurality of zones, wherein the logic block is operable to calculate a single control value based on the sensor data from two or more of the plurality of zones;

wherein the logic block is further operable to provide the single control value to control the at least one fan.

22. The system of claim 21, wherein the single control value determines the speed of the fan.

23. The system of claim 21, wherein the single control value is a single PWM value corresponding to a PWM output controlling the fan.

24. The system of claim 21, wherein the single control value is a single voltage value.